Clinical Result of ORIF v.s. CRIF with Herbert Screw for Scaphoid Fracture P-155

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Introduction: Scaphoid fracture has high avascular necrosis risk and early fixation is needed for reducing the risk. As we known, open reduction with Herbert screw is a common surgical method, but we use close reduction with percutaneous Herbert screw fixation recently. This article will show you comparison of clinical result between ORIF and CRIF.
Materials and Methods: From Jan. 2010 to July 2013, total 32 case with scaphoid fracture received operation by single surgeon and mean follow up period was at least 6months. 13 cases received CRIF and 19 cases received ORIF. We follow the cases with clinical symptoms and radiography regularly. Only ORIF with Herbert screw was included. Multiple fracture, revision, and prosthesis replacement cases had been excluded.
Results: We had 4 non-union cases at last follow up ,including one pre-op non-displaced fracture and three pre-op displaced fracture, and all the cases received ORIF. All 13 cases received CRIF had union at last ,even 3cases had mild pre-op displacement. We had 3 cases loss of follow up. Mean op time of CRIF was 46 mins and of ORIF was 86.9 mins.
Discussion: All of our cases received CRIF had well bony union, even 3 in 13 cases was mild displaced. All the non-union cases were neglected one and were received ORIF. As we known, non-union rate is up to 10~20% in ORIF cases, and we believed another risk of non-union of our cases was neglected fracture. It seems that CRIF is prior to ORIF in our cases, including op time and union rate, but we believed that patient selection is much more important. In fresh and non-displaced scaphoid fracture, CRIF seems a better choice than ORIF. Otherwise, ORIF with or without bone grafting is more suitable in neglected and displaced fracture.

以微創手術治療肱骨骨折之臨床研究 P-156
Clinical Results of Minimally Invasive Plate Osteosynthesis (MIPO) for Humerus Fracture: A Review of 36 Patients

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Introduction: Our aim was to evaluate the results of minimally invasive plate osteosynthesis (MIPO) using locking plates in diaphyseal humerus fractures.
Materials and Methods: We treated 36 patients with fractures of the humeral shaft by MIPO technique between June 2009 and October 2011 were included in this study.Mean age was 51.2 (range: 23 to 86) years and all patients were females. Mean follow-up was 39.9 (range: 14.8 to 59.2) months. According to AO/ASIF classification, nine patients had 12C1, seven patients 12A1, 11 patients 12A2, and 9 patients 11A2 fractures. Radial nerves were explored and protected in all patients. Patients were evaluated radiographically for union and functionally using the Constant-Murley score.
Results: The mean healing time of all fractures was 12.3 weeks. After consolidation, shoulder function was excellent in 95.1% and elbow function excellent in 90.2%. Functional end-results were excellent in 89.2% of patients, moderate in 10.8% .None of the patients had nonunion, avascular necrosis, axillary or radial nerve paralysis or implant failure. Mean Constant-Murley score was 87.2 ± 2.9 (range: 70 to 100). Mean union time was 3.1 (range: 2.5 to 4.6) months.
Discussion: Treatment of humerus shaft fractures has been revolutionized by locked plating.Previous instrumented fixation methods, including rods, nails, pins, and plates and screws, were often limited by inadequate purchase into the humeral head.Locked plating provides more rigid fixation into the metaphyseal bone and consequently allows for earlier mobilization, which theoretically decreases postoperative stiffness.
Conclusions: MIPO of humerus diaphysis fractures allows for preservation of blood supply in fracture fragments, owing to less soft tissue and periosteal injury. Early return of function in the shoulder and elbow joints and favorable healing time are the major advantages of this method in this rare subset of humerus fractures.